travagant race-prejudice and excitable ill-feeling. We know that the human species has not escaped Professor Goldschmidt's attention, for we have his interesting account of the hybrids on the Bonin Islands; some day, no doubt, Professor Goldschmidt will be tempted to deal with the wider issues of human genetics and give the world the benefit of his views on the problems of eugenics.

In conclusion, we venture to suggest that Professor Goldschmidt, with his perfect command of English, might entrust the next edition of his book to an English publisher. Most medical students in this country are woefully uninterested in genetics and still more woefully uninstructed in German, and an English edition of Professor Goldschmidt's admirable text-book would be an unmixed blessing to English-speaking students on both sides of the Atlantic.

M. S. PEASE.

Bateson, Beatrice. *William Bateson, F.R.S. Naturalist: His Essays and Addresses, with a short account of his life.* Cambridge, 1928. University Press. Pp. ix+473. Price 21s.

To those who knew William Bateson the news on February 8th, 1926, that he had died came as a great shock: it was known for some time he had suffered from heart trouble but his personality was such that it seemed impossible that his towering figure and commanding presence could have been withdrawn from our midst. In the book before us Mrs. Bateson has done great service to science in putting on record the life of one who will always be regarded as one of the founders of genetics and as one of the greatest biologists of his times.

Bateson's taste for science was of early growth; though he was born in 1861, his mother wrote to a friend about 1875, "Well, I am getting Willie a stunning little book by Sir John Lubbock on the Influence of Insects in the development of Flowers. I will see if he likes it. I expect him to burrow down in it like a bee in a flower himself"; and again, his sister recalls how at an early age he announced his intention of becoming a naturalist . . . "if I am good enough, if not, I suppose I shall have to be a doctor." However, like his great predecessor Charles Darwin, he was no success at school. In letters to his father the headmaster reiterated how disappointed he was with the boy's work; and Bateson in after years said, "I look back on my school education as a time of scarcely relieved weariness, mental starvation and despair. There came at last a moment when I was turned into a chemical laboratory and for the first time found there was such a thing as real knowledge which had a meaning and was not a mere exercise in pedantry."

Leaving Rugby in 1879, he entered at St. John's College, Cambridge, but even now his school troubles were not over, for he was "ploughed" in mathematics in the "Little-go"; but once quit of school and "pedantry" and free to choose for himself his progress was uninterrupted, for by 1883 he had obtained double firsts in the Natural Science Tripos and was free to devote his life to biology. His early researches were on conventional zoological lines, but soon he became interested in the question of variation and began a collection of facts bearing on this subject. So absorbed did he become that the greater part of his energies were given to this "fancy subject," as it was called by Sedgwick, and there is no doubt but that his unconventionality in research stood in his way of material advancement.

For some years it was a struggle to obtain recognition and funds for the continuance of work on heredity and variation, but the re-discovery in 1890 of Mendel's papers by De Vries and Correns (which were gladly accepted by Bateson) and the setting up of a Royal Society Committee in 1897 to investigate measurable characteristics of plants and animals were mile-stones on the journey towards the establishment of modern genetics. Even the word genetic was coined by Bateson; for in a letter to Sedgwick we find, "No single word in common use quite gives this meaning (the study of heredity and variation). Such a word is badly wanted,

and if it were desirable to coin one, ' Genetics ' might do."

The invitation in 1909 to assume the Directorship of the newly founded John Innes Horticultural Institute at Merton gave the chance for which Bateson had been longing to develop his studies on a large scale. He resigned his Chair of Biology and by his peculiar gifts and unlimited energy proceeded to build an Institute destined to become world famous.

A study of the memoir shows very vividly the human and artistic side of Bateson's character: his letters written from Turkestan to his sister Anna are full of quaint touches of humour, and throughout one is impressed by the wide range of subjects upon which he had thought and characteristically had formed very definite opinions.

The twenty papers which Mrs. Bateson has reprinted in the volume following the memoir are of especial interest in showing the gradual development of the study of genetics. Ten of them were, as Bateson puts it, " all more or less lawfully begotten by Mendelism out of Common Sense, *me obstetricante.*"

As a eugenist Bateson was rather disappointing: it is true that in 1919 he delivered the Galton Lecture, but it must be confessed that a re-perusal of this lecture leaves the eugenist somewhat cold. Isolated phrases in his other addresses, however, leave no room for doubt but that he whole-heartedly believed in the principles upon which eugenics are or should be founded. His diffidence may be ascribed to his horror of having his science in any way entangled with public affairs. Religion, politics, and law he mistrusted and disliked; to him they seemed systems of cumbersome intrigue, menacing human progress and content. Eugenics, it must be confessed, he placed in the same category, as the following extract from a letter to Mr. Michael Pease shows:

" . . . The fact is I never feel Eugenics is my job. On and off I have definitely tried to keep clear of it. To real Genetics it is a serious—increasingly serious—nuisance diverting attention to subordinate and ephemeral issues, and giving a doubtful flavour to good materials. Three times I have come out as an Eugenist, yielding to a cheap temptation, and on each occasion I have wholly missed even that humble mark; I don't mean to try again. My Galton lecture, which I thought would be a famous clap-trap, had the unique distinction of being the only Galton lecture to which no single newspaper would make allusion, much less report. I infer it got home on to somebody's nerves all right. I have tried to republish those papers with others more or less cognate, but publishers know their public and refuse with contumely. My eugenic career I regard as closed, and serve me right for dabbling in taboo waters. The kind of thing I say on such occasions is what no reformer wants to hear, and the Eugenic ravens are croaking for Reform."

The fact remains, however, that Bateson's work indirectly furthered the development of the study founded by Galton, and for that reason alone eugenists owe him a debt of gratitude.

D. WARD CUTLER.

NATURE AND NURTURE

Twenty-Seventh Yearbook of the (American) National Society for the Study of Education. Bloomington, Ill., 1928; Public School Pub. Co. Two Vols. Pp. 465+397. Price $1.75

THIS yearbook is the product of co-operative work and research by the society's committee on Nature and Nurture, under the chairmanship of Professor Lewis M. Terman. Volume one deals with the influence of nature and nurture on intelligence, volume two with their influence on achievement.

Each volume consists of a number of monographs on the relative influence of environment and heredity by members of the committee and others, with an editorial comment welding the whole together. Definite results of experiment alone are reported, and mere opinion kept out or at any rate carefully labelled as such. The verdict is not unanimous, but the general con-